

INTERNATIONAL SEARCH REPORT

 International Publication No.
 PCT/US 03/02818

PCT/PTO 03 MAY 2005

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H04R1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 187 333 A (ADAIR JOHN F) 16 February 1993 (1993-02-16) abstract column 6, line 51 - line 16 ---	1-47
A	US 5 373 564 A (SPEAR ROBERT J ET AL) 13 December 1994 (1994-12-13) abstract column 2, line 10 - line 51 ---	1-47
A	US 5 432 860 A (KASAJIMA SYOJI ET AL) 11 July 1995 (1995-07-11) abstract figure 7 column 2, line 2 - line 42 --- -/--	1-47

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
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- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

24 October 2003

Date of mailing of the international search report

31/10/2003

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 721 786 A (CARRINGTON SIMON PAUL) 24 February 1998 (1998-02-24) abstract column 1, line 36 -column 2, line 2 -----</p>	1-47

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 03/02818

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5187333	A	16-02-1993	NONE	
US 5373564	A	13-12-1994	NONE	
US 5432860	A	11-07-1995	JP 2070014 C	10-07-1996
			JP 3235497 A	21-10-1991
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